

What is claimed is:

1. An apparatus for capturing a digital image from a film-based camera having a chamber to receive a film cartridge and a take-up spool to advance the film after each shot, comprising:

5 a cartridge shaped to fit in the camera film chamber, the cartridge including a processor, a storage unit coupled to the processor, and an input output unit coupled to the processor; and

10 a flexible strip having one end coupled to the cartridge and the other end adapted to be wound on the camera take-up spool, the flexible strip containing one or more imaging arrays deposited thereon to capture the digital image, each of the imaging arrays communicating with the processor.

2. The apparatus of claim 1, wherein the strip is made from plastic.

3. The apparatus of claim 1, wherein the strip is made from polyethylene terephthalate (PET).

4. The apparatus of claim 1, wherein the strip is made from a roll-to-roll process.

5. The apparatus of claim 1, further comprising a shutter opening sensor positioned on the strip.

6. The apparatus of claim 1, wherein the storage unit stores parameter data associated with each digital image.

7. The apparatus of claim 6, wherein the parameter data includes print format, lighting condition, subject distance, time of exposure, or date of exposure.

8. The apparatus of claim 6, wherein the parameter data is communicated automatically to photographic finishers who utilize the parameter data to improve print quality.
9. The apparatus of claim 6, further comprising a compression engine coupled to the processor to compress image data or video data.
10. The apparatus of claim 9, wherein the compression engine includes JPEG or MPEG.
11. The apparatus of claim 1, wherein the input output unit includes a serial port, a Universal Serial Bus (USB) port, a PCMCIA port, an infrared port, or a wireless port.
12. The apparatus of claim 1, wherein the input output unit is a Bluetooth port.
13. The apparatus of claim 1, wherein the camera has a rewinder motor to automatically advance or retract the strip.
14. The apparatus of claim 13, further comprising a tension generator driving a spool in the cartridge and controlled by the processor, the tension generator retarding spool rotation to simulate end of film to the camera.
15. A method for taking a digital image from a film-based camera having a shutter, a chamber to receive a film cartridge and a take-up spool to advance the film after each shot, the method comprising:
- mounting a cartridge in the camera film chamber, the cartridge storing a flexible strip containing one or more imaging arrays deposited thereon;
- wounding one end of the flexible strip on the camera take-up spool; and

upon detecting a shutter opening, capturing the digital image and storing the captured image.

16. The method of claim 15, further comprising advancing the strip to position the next imaging array for the next image.

17. The method of claim 15, further comprising sending the digital image to a remote processor through a serial port, a Universal Serial Bus (USB) port, a PCMCIA port, an infrared port, or a wireless port.

18. The method of claim 15, wherein the strip is made from plastic.

19. The method of claim 15, wherein the strip is made from polyethylene terephthalate (PET).

20. The method of claim 15, wherein the strip is made from a roll-to-roll process.